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## (54) Title: HUMAN PROTEIN KINASES

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NNC ATT CTG GGA CCT GT1 CGC AGA GGA CCT GT1 CGC AGA GGA CCGA AGA TCG CTT GTA
TCA CGG GCC TGA CTC ACA GTC CTA 721
117 126 135 AGG ATG GCA GGA CAG CCC GGC CAC ATG
GTT CGT GCC CTC GTG AGG CIG GGT  171 180 189 198 207 215  CCC CAT GGA GGG AGT TCC AAC AAC CTC TGC CAC ACC CTG GGG CCT GTG CAT CCT  270 252 261 270 CAC
CCC CAT GGA GGG AGT TCC AAC AAC CTC
CCT GAC CCA CAG AGG CAT CCC AAC ACG CTG TCT TIT CGC 130
279 288 297 300 ATC AGC GAG GTG TAC AAG GCC
TTC CAG ATC GAA AAG AAG AAG AAG AAG AAG AAG AAG AA
ACC TGC CTG GAC AGG AND ACC
387 396 405 414 423  ATG ATG GAC GCC AAG GCG AAG CAG GAC TGT GTC AAG GAG ATC GGC CTC TTG AAG  M M D A K A K Q D C V K E I G L L K

The present invention provides novel human protein kinases (HPK) and polynucleotides which identify and encode HPK. The The present invention provides novel human protein kinases (HPK) and polynucleotides which identify and encode HPK. The invention provides for genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding HPK. The invention also provides for pharmaceutical compositions comprising HPK or antagonists of HPK, and antibodies which specifically bind invention also provides for pharmaceutical compositions comprising HPK for treatment or prevention of diseases associated with abnormal HPK. Additionally, the invention provides antisense molecules to HPK for treatment or prevention of diseases associated with abnormal expression of HPK. expression of HPK.

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